WHAT IS CLAIMED IS:

1.   A method of deciding a coating condition in manufacturing of a magnetic recording medium by using an extrusion-type coating method of extruding a coating liquid from an end of a slit of a coating head and applying the coating liquid to a continuously-running flexible support while making the flexible support relatively approach the end of the coating head so as to apply a magnetic coating liquid obtained by dispersing magnetic particles in a solvent on the flexible support to form a magnetic-coating-liquid layer, the method comprising the steps of:

evaluating quality of the coating condition in accordance with shearing energy E for unit volume of the magnetic-coating-liquid layer obtained by

$$E = \frac{\mu \cdot L \cdot V}{4 \cdot t^2} \, ,$$

where μ is viscosity (Pa·sec) of the magnetic coating liquid at shearing velocity of 10^5 sec^{-1}, L is length (m) of a flexible support opposite face at downstream side of the slit at the end of the coating head, V is running velocity (m/sec) of the flexible support, and t is wet-coating thickness (m) of the magnetic-coating-liquid layer; and

deciding the coating condition in accordance with a result of the evaluating step.

2.   A magnetic recording medium coated so as to meet a coating condition of shearing energy $E > 3 \times 10^6$ in accordance with the method of deciding the coating condition according to claim 1.

3.   A method of deciding a coating condition in manufacturing of a magnetic recording medium by using an extrusion-type coating method of extruding coating liquids from ends of slits of a coating head and applying the coating liquids to a continuously-running flexible support while making the flexible support relatively approach an end of the coating head so as to apply a non-magnetic coating liquid obtained by dispersing non-magnetic particles in a solvent on the flexible support to form a non-magnetic lower layer and apply, before the non-magnetic lower layer is dried, a magnetic coating liquid obtained by dispersing magnetic particles in a solvent on the non-magnetic lower layer to form a magnetic upper layer, the method comprising the steps of:

evaluating quality of the coating condition in accordance with shearing energy E for unit volume of the magnetic upper layer obtained by

$$E = \frac{\mu_2 \cdot L \cdot V_c^3}{4 \cdot t_2^2 \cdot V^2} \; ,$$

$$V_c = \frac{V}{\sqrt{(1 + \alpha \cdot t_1 / t_2)}} \; , \text{ and}$$

$$\alpha = \mu_2 / \mu_1 \; ,$$

where μ_1 is viscosity (Pa·sec) of the non-magnetic coating liquid at shearing velocity of 10^5 sec^{-1}, μ_2 is viscosity (Pa·sec) of the magnetic coating liquid at shearing velocity of 10^5 sec^{-1}, L is length (m) of a flexible support opposite face at downstream side of the slit discharging the magnetic coating liquid at the end of the coating head, V is running velocity (m/sec) of the flexible support, t_1 is wet-coating thickness (m) of the non-magnetic lower layer, and t_2 is wet-coating thickness (m) of the magnetic upper layer; and

deciding the coating condition in accordance with a result of the evaluation step.

4. A magnetic recording medium coated so as to meet a coating condition of shearing energy $E > 3 \times 10^6$ in accordance with the method of deciding the coating condition according to claim 3.